

**Listing and Amendments to the Claims**

This listing of claims will replace the claims that were published in the PCT Application:

1. (currently amended) A method of operating a transmitting/receiving station ~~(3)~~ of a wireless communication network in antenna diversity mode, this station having a plurality of reception antennas ~~(4)~~, ~~characterized in that~~ wherein it consists in:

- listening ~~(11, 24)~~ to the communications between two other transmitting/receiving stations ~~(1, 2)~~ of the network, successively on each reception antenna,
- analysing the quality of listening ~~(12, 25, 26)~~ on each reception antenna so as to identify a reception antenna from among the plurality of reception antennas which sets up the best communication link with one of the said other two transmitting/receiving stations.

2 (currently amended) The method according to claim 1, ~~characterized in that~~ wherein one of the two other transmitting/receiving stations ~~(1, 2)~~ of the network is an access point of the network

3 (currently amended) The method according to ~~any of claims 1 and 2,~~ ~~characterized in that~~ claim 1, wherein the analysis of the quality of listening is validated on reception of an acknowledgement frame.

4 (currently amended) The method according to ~~any of claims 1 to 3,~~ ~~characterized in that~~ claim 1, wherein the analysis of the quality of listening is based on a measurement ~~(12)~~ of the power of the signal in terms of reception of frames ~~(DATA)~~ originating from the said other stations.

5 (currently amended) The method according to ~~any of claims 1 to 4,~~ ~~characterized in that~~ claim 1, wherein the analysis of the quality of listening is based on a comparison ~~(25, 26)~~ of the data of a frame ~~(DATA)~~ originating from the said other stations with predetermined data.

6 (currently amended) The method according to claim 4, ~~characterized in that wherein~~ the analysis of the quality of listening is based on a combination of a measurement ~~(36)~~ of the power of the signal in terms of reception of frames ~~(DATA)~~ originating from the said other stations and of a comparison ~~(35)~~ of preamble with predetermined data for a first tested antenna and on a measurement ~~(12)~~ of the power of the signal in terms of reception of frames ~~(DATA)~~ originating from the said other stations for second antennas to be tested.

7 (currently amended) The method according to claim 6, ~~characterized in that wherein~~ the first tested antenna is the antenna whose said associated combination of measurements is the oldest one.

8 (currently amended) The method according to ~~any of claims 6 and 7,~~ ~~characterized in that~~ claim 6, wherein said comparison is a correlation measurement.

9 (currently amended) A transmitting/receiving station having a plurality of reception antennas ~~(4)~~ for operating in antenna diversity mode in a wireless communication network, ~~characterized in that~~ wherein it comprises:

- means for listening ~~(11, 24)~~ to the communications between two other transmitting/receiving stations ~~(1, 2)~~ of the network, successively on each reception antenna,
- means for analysing the quality of listening ~~(12, 25, 26)~~ on each reception antenna so as to identify a reception antenna from among the plurality of reception antennas which sets up the best communication link with one of the said other two transmitting/receiving stations.

10 (currently amended) The station according to claim 9, ~~characterized in that wherein~~ one of the two other transmitting/receiving stations ~~(1, 2)~~ of the network is an access point of the network.

11 (currently amended) The station according to ~~any of claims 9 and 10,~~ ~~characterized in that~~ claim 9, wherein the analysis of the quality of listening is validated on reception of an acknowledgement frame.

12 (currently amended) The station according to ~~any of claims 9 to 11~~ ~~characterized in that~~ claim 9, wherein the analysis of the quality of listening is based on a measurement (12) of the power of the signal in terms of reception of frames (DATA) originating from the said other stations.

13 (currently amended) The station according to ~~any of claims 9 to 12,~~ ~~characterized in that~~ claim 9, wherein the analysis of the quality of listening is based on a comparison (25, 26) of the data of a frame (DATA) originating from the said other stations with predetermined data.

14 (currently amended) The station according to claim 12, ~~characterized in that~~ wherein the analysis of the quality of listening is based on a combination of a measurement (36) of the power of the signal in terms of reception of frames (DATA) originating from the said other stations and of a comparison (35) of preamble with predetermined data for a first tested antenna and on a measurement (12) of the power of the signal in terms of reception of frames (DATA) originating from the said other stations for second antennas to be tested.

15 (currently amended) The station according to claim 14, ~~characterized in that~~ wherein the first tested antenna is the antenna whose said associated combination of measurements is the oldest one.

16 (currently amended) The station according to ~~any of claims 14 and 15,~~ ~~characterized in that~~ claim 14, wherein said comparison is a correlation measurement.

17 (currently amended) A wireless communication network ~~characterized in that~~ it comprises one or more stations according to ~~one of claims 9 to 16~~ claim 9.